

To: Russo, Rebecca[Russo.Rebecca@epa.gov]
From: Faulk, Libby
Sent: Sat 8/8/2015 5:20:54 AM
Subject: RE: Summary of the evaluation of pH data

Can this be publicly shared?

Libby Faulk, Program Manager

Public Affairs and Community Involvement

US EPA, Region 8

1595 Wynkoop Street

Denver, CO 80202

faulk.libby@epa.gov

303-312-6083

From: Russo, Rebecca
Sent: Friday, August 07, 2015 7:30 PM
To: Faulk, Libby
Subject: FW: Summary of the evaluation of pH data

Rebecca A. Russo

Region 8 Congressional and Intergovernmental Liaison

Office: 303-312-6757

Cell: 303-204-1930

From: Russo, Rebecca

Sent: Friday, August 07, 2015 5:20 PM

To: 'john_whitney@bennet.senate.gov'; 'rosemary_rodriguez@bennet.senate.gov'; 'sebastian_dawiskiba@bennet.senate.gov'; 'chuck_poplstein@gardner.senate.gov'; 'betsy_bair@gardner.senate.gov'; 'Marcus, Darlene'; 'Aaron'; 'Swager, Curtis (Gardner)'; 'jennifer_lorraine@gardner.senate.gov'; 'chris_hansen@gardner.senate.gov'; 'nicole_frazier@gardner.senate.gov'; 'tim_prowitt@bennet.senate.gov'; 'laura_sherman@bennet.senate.gov'; 'tim.martin@mail.house.gov'; Gray, David; Distefano, Nichole; Levine, Carolyn; Snyder, Raquel

Subject: Summary of the evaluation of pH data

The following is a summary of the evaluation of pH data collected as of August 6, 2015.

Additional information related to additional data, including metals, is being developed and will be provided in a separate statement.

pH (a measure of acidity) was measured at a number of locations along Cement Creek and the Animas River to Durango and beyond to Farmington, New Mexico. Except for locations within Cement Creek, generally, pH levels were measured before the arrival of the contaminant plume and found to range between 6.5 and 7.6. When the contaminated water from the mine release passed a sampling location, the pH lowered (indicating more acid) to approximately 4.8 (below Silverton). A pH of 4.5 is consistent with the pH of a liquid like black coffee. Later, however, in locations down river, the pH began to return to pre-incident levels. Water acidity levels in the Animas above Cement Creek have been consistent over the past two days at approximately 6.4 to 6.8. For reference, the pH of saliva is roughly 6 and the pH of pure water is 7. The acidity level in Cement Creek has remained low at 3.74 since the mine release. Tomato juice and apples also have a pH of approximately 3.74. While this reference information is relevant to skin exposure, the evaluation of impacts of these pH levels on fish and other aquatic life is ongoing.

pH of Common Substances

ACIDIC	NEUTRAL	ALKALINE OR BASIC
0	7	10
1	8	11
2	9	12
3	7-UP Soda	13
4	Baking Soda, Seawater, Eggs	14
5	Perm Solutions (8.5 to 9.5)	
6	Toothpaste, Hand Soap	
7	"Pure" Water, Blood	
8	Shampoos (7.0 to 10.0)	
9	Perm Solutions (8.5 to 9.5)	
10	Milk of Magnesia, Mild Detergent	
11	Household Ammonia and Cleaners	
12	Soapy Water	
13	Hair Straighteners (11.5 to 14.0)	
14	Bleach, Oven Cleaner	
	Liquid Drain Cleaner, Caustic Soda	

Rebecca A. Russo

Region 8 Congressional and Intergovernmental Liaison

Office: 303-312-6757

Cell: 303-204-1930